

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

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Claims 1 to 6: (Canceled).

7. (Previously Presented) A method for determining speech quality using an objective measure, the method comprising:

calculating a speech quality characteristic value by comparing respective spectral short-time properties of an assessed speech signal and of a reference speech signal;

prior to the comparing the respective spectral short-time properties, reducing differences in respective mean spectral envelopes of the assessed speech signal and of the reference speech signal by weighting spectral short-time properties of the assessed speech signal and the reference speech signal in a predetermined number of time segments using a spectral weighting function so as to include differences in the respective mean spectral envelopes in the speech quality characteristic value to a limited extent, the spectral weighting function being calculated from the respective mean spectral envelopes; and

calculating a respective intensity value for each of a plurality of frequency bands in a signal segment respectively for the assessed speech signal and the reference speech signal using variable limits for the frequency bands so that a respective difference between each calculated respective intensity of the assessed speech signal and the reference speech signal is reduced.

8. (Previously Presented) The method as recited in claim 7 wherein the respective difference between each calculated respective intensity of the assessed speech signal and the reference speech signal is a respective minimum.

9. (Previously Presented) The method as recited in claim 7 further comprising, before the reducing the differences in the respective mean spectral envelopes and the calculating the respective intensity, calculating the respective mean spectral envelopes of the assessed speech signal and the reference speech signal in the form of respective mean power density spectra and wherein the calculating of

the spectral weighting function is performed using respective quotients of the respective mean power density spectra and wherein a short-time power density spectrum of the reference speech signal is weighted with the spectral weighting function before calculating the speech quality characteristic value.

10. (Previously Presented) The method as recited in claim 7 further comprising, before the reducing the differences in the respective mean spectral envelopes and the calculating the respective intensity, calculating the respective mean spectral envelopes of the assessed speech signal and the reference speech signal in the form of respective mean power density spectra and wherein the calculating of the weighting function is performed for partial regions of the calculated respective mean spectral envelopes so that the reducing differences in the mean spectral envelopes occurs only in partial spectral regions.

11. (Currently Amended) A The method as recited in claim 7 for determining speech quality using an objective measure, the method comprising:

calculating a speech quality characteristic value by comparing respective spectral short-time properties of an assessed speech signal and of a reference speech signal;

prior to the comparing the respective spectral short-time properties, reducing differences in respective mean spectral envelopes of the assessed speech signal and of the reference speech signal by weighting spectral short-time properties of the assessed speech signal and the reference speech signal in a predetermined number of time segments using a spectral weighting function so as to include differences in the respective mean spectral envelopes in the speech quality characteristic value to a limited extent, the spectral weighting function being calculated from the respective mean spectral envelopes; and

calculating a respective intensity value for each of a plurality of frequency bands in a signal segment respectively for the assessed speech signal and the reference speech signal using variable limits for the frequency bands so that a respective difference between each calculated respective intensity of the assessed speech signal and the reference speech signal is reduced, wherein the calculating of the respective intensity value for each of the plurality of frequency bands is performed before the calculating the quality characteristics value and is performed by integrating a respective signal intensity, the width of the frequency bands being constant on a pitch scale and further

comprising calculating a respective specific loudness from the respective intensity values in the respective frequency bands, the limits for the frequency bands being selected so that differences in the calculated respective specific loudnesses between the assessed signal and the reference speech signal are a respective minimum in each frequency band in the signal segment.

12. (Currently Amended) A The method as recited in claim 7 for determining speech quality using an objective measure, the method comprising:

calculating a speech quality characteristic value by comparing respective spectral short-time properties of an assessed speech signal and of a reference speech signal;

prior to the comparing the respective spectral short-time properties, reducing differences in respective mean spectral envelopes of the assessed speech signal and of the reference speech signal by weighting spectral short-time properties of the assessed speech signal and the reference speech signal in a predetermined number of time segments using a spectral weighting function so as to include differences in the respective mean spectral envelopes in the speech quality characteristic value to a limited extent, the spectral weighting function being calculated from the respective mean spectral envelopes; and

calculating a respective intensity value for each of a plurality of frequency bands in a signal segment respectively for the assessed speech signal and the reference speech signal using variable limits for the frequency bands so that a respective difference between each calculated respective intensity of the assessed speech signal and the reference speech signal is reduced., wherein the calculating of the speech quality characteristic value is performed based on a similarity of respective spectral representations of the assessed speech signal and the reference speech signal in a plurality of time segments, the respective similarity representing a respective correlation coefficient between the respective spectral representations of the assessed speech signal and the reference speech signal in a respective time segment of the plurality of time segments averaged over the plurality of time segments.

13. (Previously Presented) The method as recited in claim 12 wherein the respective spectral representations include the respective spectral short-time properties.

14. (Previously Presented) The method as recited in claim 12 wherein the respective correlation

coefficient is calculated from a subset of the respective spectral representations.

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